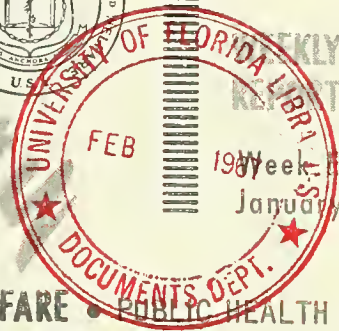


# Morbidity and Mortality



U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE • PUBLIC HEALTH SERVICE  
BUREAU OF DISEASE PREVENTION AND ENVIRONMENTAL CONTROL

## CURRENT TRENDS MEASLES - 1966

The lowest number of measles cases during the past 21 years was reported in 1966. The preliminary 1966 total of 202,886 cases is 59,018 less than the 1965 total of 261,904.

The dramatic change is the pattern of measles during the first quarter of the epidemiologic year 1966-67 is readily apparent in Figure 1. For the week ending January 7, a total of 1,072 cases of measles was reported, representing a decrease of 44 cases from the preceding week and a decrease of 2,812 cases below the total of 3,884 for the first week of 1966. The two states reporting the most cases were Texas with 261 and Washington with 159. The numbers of measles cases reported by each state during the past 4 weeks (weeks 50, 51, 52 in 1966 and

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week 1 in 1967) are compared to reported cases for the comparable 4-week periods of the previous 5 years in Table 1.

No new "epidemics" have been reported this week (Table 2). Four counties were removed from the list on the basis of reported incidence falling below the arbitrary criteria that have been set.

(Reported by the Childhood Viral Diseases Section, Epidemiology Program, NCDC.)

(Tables 1 and 2 on pp. 2 and 3)

Figure 1  
REPORTED MEASLES IN THE UNITED STATES  
1966-67 COMPARED WITH 1963-64 TO 1965-66



Table 2  
Counties Reporting "Outbreaks" of Measles\*

State	County	Pop. (1,000's)	November					December			
			5	12	19	26	3	10	17	24	31
Arkansas	Ouachita	32				10	3		119	35	80
Colorado	Pueblo	119		6	26	11	8	20	18	11	17
Michigan	Wayne	2,666	10	71	16	30	35	13	30	32	14
Mississippi	Oktibbeha	26			59		99	73	58		
Nebraska	Richardson	14	8	41	18	7		27		14	
N. Carolina	Durham	112	1		34	25	15	42	64	42	22
Oregon	Lane	163	3	3	1	18	11	25	16	1	1
Oregon	Washington	92	12	69	56	†65	83	33	31	10	4
Tennessee	Maury	42		25		14	24	8	13		28
Texas	Brown	25	3		17	13	44	7	18		6
Texas	Hutchison	34		2	50	130	130		112		
Texas	Red River	16		14	11	26	12	10	19	11	10
Texas	Travis	212	3	1	5	20	22	30	36	41	51
Washington	Benton	62	6	6			15	5	30	15	
Washington	Franklyn	23	2	1			8	4	15	12	
Washington	King	935	41	6	48	38	38	29	50	15	23
Washington	Snohomish	172	60	3	89	†25	44	21	23	8	
Washington	Spokane	278	42	24	60	14	36		49	2	21
Wisconsin	Waupaca	35	3	4	3	4	2	12	12	4	6

\*Criteria for "outbreaks":

Population at least 1,000,000: 25 cases for 2 consecutive weeks.

Population 500,000 - 999,999: 20 cases for 2 consecutive weeks.

Population 100,000 - 499,999: 15 cases for 2 consecutive weeks.

Population less than 100,000: 10 cases for 2 consecutive weeks.

†Immunization program begun according to reports received by MMWR.

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
(Cumulative totals include revised and delayed reports through previous weeks)

DISEASE	1st WEEK ENDED		MEDIAN 1962 - 1966	CUMULATIVE, FIRST WEEK		
	JANUARY 7, 1967	JANUARY 8, 1966		1967	1966	MEDIAN 1962 - 1966
Aseptic meningitis	21	30	19	21	30	19
Brucellosis	4	—	3	4	—	3
Diphtheria	—	1	3	—	1	3
Encephalitis, primary:						
Arthropod-borne & unspecified	16	19	—	16	19	—
Encephalitis, post-infectious	5	9	—	5	9	—
Hepatitis, serum	37	10	688	37	10	688
Hepatitis, infectious	552	665		552	665	
Malaria	21	5	2	21	5	2
Measles (rubeola)	1,072	3,884	4,822	1,072	3,884	4,822
Meningococcal infections, total	42	64	46	42	64	46
Civilian	41	59	—	41	59	—
Military	1	5	—	1	5	—
Poliomyelitis, total	—	1	1	—	1	1
Paralytic	—	—	—	—	—	—
Rubella (German measles)	249	396	—	249	396	—
Streptococcal sore throat & scarlet fever	8,314	7,394	6,810	8,314	7,394	6,810
Tetanus	1	3	3	1	3	3
Tularemia	2	4	7	2	4	7
Typhoid fever	2	3	2	2	3	2
Typhus, tick-borne (Rky. Mt. spotted fever)	3	5	—	3	5	—
Rabies in animals	68	72	55	68	72	55

NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax	—	Rabies in man	—
Botulism	—	Rubella, Congenital Syndrome	—
Leptospirosis: Calif-1	1	Trichinosis: NYUpS-2	2
Plague	—	Typhus, murine	—
Psittacosis: Ark-1, Calif-1	2		

Table 1  
Reported Cases of Measles, United States  
Current Four Weeks and Comparable Four-Week Periods, 1961-62 through 1965-66

State	Week ended				4-week Total 1966-67	Comparable 4-week period				
	Dec. 17, 1966	Dec. 24, 1966	Dec. 31, 1966	Jan. 7, 1967		1965-66	1964-65	1963-64	1962-63	1961-62
United States	1,437	998	1,116	1,072	4,623	12,935	14,504	13,810	16,714	18,506
New England	12	12	20	8	52	303	4,182	778	733	3,051
Maine	3	4	6	2	15	37	582	21	55	864
New Hampshire	—	—	—	—	—	1	205	4	48	186
Vermont	1	—	3	1	5	67	54	178	61	13
Massachusetts	5	—	8	5	18	137	1,914	320	273	1,372
Rhode Island	2	—	—	—	2	21	319	17	54	193
Connecticut	1	8	3	—	12	40	1,108	238	242	423
Middle Atlantic	50	70	17	30	167	2,927	685	3,072	1,567	2,751
New York City	7	4	5	3	19	1,157	127	1,751	711	1,581
New York Up-State	8	24	7	13	52	307	223	—	—	—
New Jersey	20	22	5	10	57	905	53	643	244	790
Pennsylvania	15	20	—	4	39	558	282	678	612	380
East North Central	167	167	137	99	570	4,976	2,230	2,208	6,605	2,604
Ohio	4	15	40	7	66	266	407	455	776	187
Indiana	13	15	2	20	50	102	126	399	237	75
Illinois	15	3	17	6	41	1,059	61	675	365	1,437
Michigan	63	66	35	18	182	744	1,088	452	1,519	518
Wisconsin	72	68	43	48	231	2,805	548	227	3,708	387
West North Central	38	55	42	14	149	414	929	400	1,519	613
Minnesota	3	4	2	—	9	207	7	9	234	55
Iowa	18	12	15	3	48	72	415	170	1,024	288
Missouri	1	—	—	—	1	38	105	50	55	10
North Dakota	15	25	25	9	74	85	369	170	189	184
South Dakota	—	—	—	—	—	1	15	1	12	75
Nebraska	1	14	—	2	17	11	18	—	5	1
Kansas	NN	NN	NN	NN	NN	NN	NN	NN	NN	NN
South Atlantic	129	127	120	106	482	1,307	1,503	1,898	1,580	1,700
Delaware	—	—	1	—	1	10	16	16	28	5
Maryland	2	1	7	—	10	182	25	279	24	151
District of Columbia	—	—	—	—	—	66	1	67	7	95
Virginia	6	8	3	23	40	141	200	417	225	717
West Virginia	19	20	18	28	85	522	1,048	805	1,070	431
North Carolina	68	48	41	16	173	17	56	50	59	56
South Carolina	—	—	—	1	1	123	20	212	6	21
Georgia	2	1	—	—	3	37	7	30	5	2
Florida	32	49	50	38	169	209	130	22	156	222
East South Central	136	41	92	160	429	1,271	716	1,670	470	2,056
Kentucky	18	17	8	25	68	400	90	1,199	201	516
Tennessee	41	21	49	48	159	847	480	429	238	1,152
Alabama	19	1	34	30	84	5	82	19	22	185
Mississippi	58	2	1	57	118	19	64	23	9	203
West South Central	521	218	477	270	1,486	513	1,065	704	570	2,164
Arkansas	174	14	207	5	400	9	5	30	50	351
Louisiana	3	—	41	—	44	14	2	1	5	9
Oklahoma	29	7	10	4	50	11	28	57	2	33
Texas	315	197	219	261	992	479	1,030	616	513	1,771
Mountain	43	98	73	113	327	550	1,623	770	1,968	1,033
Montana	3	20	2	45	70	66	545	302	605	261
Idaho	13	8	4	6	31	142	291	182	192	126
Wyoming	1	—	1	—	2	12	27	9	9	72
Colorado	2	4	32	18	56	57	160	63	542	126
New Mexico	12	37	13	7	69	8	182	5	NN	NN
Arizona	11	6	10	22	49	235	42	134	253	264
Utah	1	21	4	4	30	26	354	46	363	158
Nevada	—	2	7	11	20	4	22	29	4	26
Pacific	341	210	138	272	961	674	1,571	2,310	1,702	2,534
Washington	197	108	57	159	521	201	574	630	327	962
Oregon	92	20	49	52	213	107	256	472	206	390
California	35	71	32	43	181	352	587	901	725	851
Alaska	17	10	—	18	45	10	18	295	8	310
Hawaii	—	1	—	—	1	4	136	12	436	21
Puerto Rico	50	47	79	43	219	232	199	314	64	144

FOR WEEKS ENDED

JANUARY 7, 1967 AND JANUARY 8, 1966 (1st WEEK)

[illegible]



## Morbidity and Mortality Weekly Report

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## CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

## FOR WEEKS ENDED

JANUARY 7, 1967 AND JANUARY 8, 1966 (1st WEEK) - CONTINUED

AREA	MALARIA	MEASLES (Rubeola)		MENINGOCOCCAL INFECTIONS, TOTAL			POLIOMYELITIS			RUBELLA	
	1967	1967	Cumulative		1967	Cumulative		Total	Paralytic		1967
			1967	1966		1967	1966	1967	1967	Cum. 1967	
UNITED STATES...	21	1,072	1,072	3,884	42	42	64	-	-	-	249
NEW ENGLAND.....	-	8	8	46	-	-	5	-	-	-	43
Maine.....	-	2	2	7	-	-	-	-	-	-	10
New Hampshire.....	-	-	-	1	-	-	-	-	-	-	-
Vermont.....	-	1	1	17	-	-	1	-	-	-	-
Massachusetts.....	-	5	5	6	-	-	1	-	-	-	6
Rhode Island.....	-	-	-	6	-	-	-	-	-	-	4
Connecticut.....	-	-	-	9	-	-	3	-	-	-	23
MIDDLE ATLANTIC.....	16	30	30	865	7	7	11	-	-	-	23
New York City.....	-	3	3	291	2	2	2	-	-	-	13
New York, Up-State.	1	13	13	207	1	1	2	-	-	-	10
New Jersey.....	-	10	10	190	4	4	5	-	-	-	-
Pennsylvania.....	15	4	4	177	-	-	2	-	-	-	-
EAST NORTH CENTRAL...	-	99	99	1,266	3	3	10	-	-	-	48
Ohio.....	-	7	7	119	2	2	4	-	-	-	4
Indiana.....	-	20	20	49	-	-	2	-	-	-	14
Illinois.....	-	6	6	125	-	-	1	-	-	-	10
Michigan.....	-	18	18	196	1	1	2	-	-	-	6
Wisconsin.....	-	48	48	777	-	-	1	-	-	-	14
WEST NORTH CENTRAL...	-	14	14	139	1	1	6	-	-	-	10
Minnesota.....	-	-	-	65	-	-	2	-	-	-	1
Iowa.....	-	3	3	24	-	-	1	-	-	-	8
Missouri.....	-	-	-	11	-	-	-	-	-	-	-
North Dakota.....	-	9	9	35	-	-	-	-	-	-	1
South Dakota.....	-	-	-	1	-	-	-	-	-	-	-
Nebraska.....	-	2	2	3	1	1	1	-	-	-	-
Kansas.....	-	NN	NN	NN	-	-	2	-	-	-	-
SOUTH ATLANTIC.....	5	106	106	520	16	16	13	-	-	-	35
Delaware.....	-	-	-	7	-	-	-	-	-	-	-
Maryland.....	-	-	-	57	-	-	1	-	-	-	10
Dist. of Columbia..	-	-	-	17	-	-	-	-	-	-	-
Virginia.....	3	23	23	10	1	1	-	-	-	-	1
West Virginia.....	-	28	28	309	3	3	-	-	-	-	8
North Carolina.....	1	16	16	10	4	4	2	-	-	-	-
South Carolina.....	1	1	1	28	-	-	2	-	-	-	-
Georgia.....	-	-	-	10	4	4	4	-	-	-	-
Florida.....	-	38	38	72	4	4	4	-	-	-	16
EAST SOUTH CENTRAL...	-	160	160	436	2	2	-	-	-	-	18
Kentucky.....	-	25	25	68	1	1	-	-	-	-	10
Tennessee.....	-	48	48	351	1	1	-	-	-	-	8
Alabama.....	-	30	30	-	-	-	-	-	-	-	-
Mississippi.....	-	57	57	17	-	-	-	-	-	-	-
WEST SOUTH CENTRAL...	-	270	270	239	7	7	4	-	-	-	3
Arkansas.....	-	5	5	2	-	-	-	-	-	-	3
Louisiana.....	-	-	-	1	2	2	-	-	-	-	-
Oklahoma.....	-	4	4	-	-	-	-	-	-	-	-
Texas.....	-	261	261	236	5	5	4	-	-	-	-
MOUNTAIN.....	-	113	113	159	1	1	-	-	-	-	10
Montana.....	-	45	45	32	-	-	-	-	-	-	-
Idaho.....	-	6	6	8	-	-	-	-	-	-	-
Wyoming.....	-	-	-	6	-	-	-	-	-	-	-
Colorado.....	-	18	18	5	-	-	-	-	-	-	3
New Mexico.....	-	7	7	2	1	1	-	-	-	-	-
Arizona.....	-	22	22	98	-	-	-	-	-	-	6
Utah.....	-	4	4	4	-	-	-	-	-	-	1
Nevada.....	-	11	11	4	-	-	-	-	-	-	-
PACIFIC.....	-	272	272	214	5	5	15	-	-	-	59
Washington.....	-	159	159	76	-	-	1	-	-	-	23
Oregon.....	-	52	52	34	1	1	1	-	-	-	9
California.....	-	43	43	102	4	4	12	-	-	-	25
Alaska.....	-	18	18	-	-	-	-	-	-	-	-
Hawaii.....	-	-	-	2	-	-	1	-	-	-	2
Puerto Rico.....	-	43	43	49	-	-	-	-	-	-	-

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDED

JANUARY 7, 1967 AND JANUARY 8, 1966 (1st WEEK) - CONTINUED

AREA	STREPTOCOCCAL SORE THROAT & SCARLET FEVER	TETANUS		TULAREMIA		TYPHOID		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
	1967	1967	Cum. 1967	1967	Cum. 1967	1967	Cum. 1967	1967	Cum. 1967	1967	Cum. 1967
UNITED STATES...	8,314	1	1	2	2	2	2	3	3	68	68
NEW ENGLAND.....	1,460	-	-	-	-	-	-	-	-	-	-
Maine.....	70	-	-	-	-	-	-	-	-	-	-
New Hampshire.....	12	-	-	-	-	-	-	-	-	-	-
Vermont.....	67	-	-	-	-	-	-	-	-	-	-
Massachusetts.....	167	-	-	-	-	-	-	-	-	-	-
Rhode Island.....	134	-	-	-	-	-	-	-	-	-	-
Connecticut.....	1,010	-	-	-	-	-	-	-	-	-	-
MIDDLE ATLANTIC.....	305	-	-	-	-	-	-	-	-	3	3
New York City.....	16	-	-	-	-	-	-	-	-	-	-
New York, Up-State.	222	-	-	-	-	-	-	-	-	2	2
New Jersey.....	NN	-	-	-	-	-	-	-	-	-	-
Pennsylvania.....	67	-	-	-	-	-	-	-	-	1	1
EAST NORTH CENTRAL...	572	-	-	-	-	-	-	-	-	3	3
Ohio.....	85	-	-	-	-	-	-	-	-	1	1
Indiana.....	137	-	-	-	-	-	-	-	-	-	-
Illinois.....	109	-	-	-	-	-	-	-	-	2	2
Michigan.....	112	-	-	-	-	-	-	-	-	-	-
Wisconsin.....	129	-	-	-	-	-	-	-	-	-	-
WEST NORTH CENTRAL...	429	-	-	1	1	-	-	-	-	24	24
Minnesota.....	9	-	-	-	-	-	-	-	-	1	1
Iowa.....	121	-	-	-	-	-	-	-	-	3	3
Missouri.....	5	-	-	-	-	-	-	-	-	5	5
North Dakota.....	201	-	-	-	-	-	-	-	-	6	6
South Dakota.....	17	-	-	-	-	-	-	-	-	4	4
Nebraska.....	-	-	-	-	-	-	-	-	-	1	1
Kansas.....	76	-	-	1	1	-	-	-	-	4	4
SOUTH ATLANTIC.....	1,075	-	-	1	1	-	-	3	3	9	9
Delaware.....	12	-	-	-	-	-	-	-	-	-	-
Maryland.....	177	-	-	-	-	-	-	-	-	-	-
Dist. of Columbia..	-	-	-	-	-	-	-	-	-	-	-
Virginia.....	304	-	-	-	-	-	-	-	-	4	4
West Virginia.....	223	-	-	-	-	-	-	-	-	2	2
North Carolina.....	15	-	-	-	-	-	-	2	2	-	-
South Carolina.....	32	-	-	1	1	-	-	-	-	-	-
Georgia.....	9	-	-	-	-	-	-	1	1	3	3
Florida.....	303	-	-	-	-	-	-	-	-	-	-
EAST SOUTH CENTRAL...	1,195	1	1	-	-	-	-	-	-	17	17
Kentucky.....	17	-	-	-	-	-	-	-	-	5	5
Tennessee.....	932	1	1	-	-	-	-	-	-	12	12
Alabama.....	215	-	-	-	-	-	-	-	-	-	-
Mississippi.....	31	-	-	-	-	-	-	-	-	-	-
WEST SOUTH CENTRAL...	994	-	-	-	-	-	-	-	-	10	10
Arkansas.....	-	-	-	-	-	-	-	-	-	-	-
Louisiana.....	-	-	-	-	-	-	-	-	-	-	-
Oklahoma.....	53	-	-	-	-	-	-	-	-	5	5
Texas.....	941	-	-	-	-	-	-	-	-	5	5
MOUNTAIN.....	1,577	-	-	-	-	2	2	-	-	2	2
Montana.....	61	-	-	-	-	1	1	-	-	-	-
Idaho.....	151	-	-	-	-	-	-	-	-	-	-
Wyoming.....	26	-	-	-	-	-	-	-	-	-	-
Colorado.....	713	-	-	-	-	-	-	-	-	-	-
New Mexico.....	312	-	-	-	-	-	-	-	-	-	-
Arizona.....	196	-	-	-	-	1	1	-	-	2	2
Utah.....	115	-	-	-	-	-	-	-	-	-	-
Nevada.....	3	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	707	-	-	-	-	-	-	-	-	-	-
Washington.....	378	-	-	-	-	-	-	-	-	-	-
Oregon.....	49	-	-	-	-	-	-	-	-	-	-
California.....	199	-	-	-	-	-	-	-	-	-	-
Alaska.....	50	-	-	-	-	-	-	-	-	-	-
Hawaii.....	31	-	-	-	-	-	-	-	-	-	-
Puerto Rico.....	-	-	-	-	-	-	-	-	-	-	-

## Morbidity and Mortality Weekly Report

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Week No.

DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED JANUARY 7, 1967

1 (By place of occurrence and week of filing certificate. Excludes fetal deaths)

Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes	Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes
	All Ages	65 years and over				All Ages	65 years and over		
NEW ENGLAND:	763	478	38	38	SOUTH ATLANTIC:	1,342	706	77	75
Boston, Mass.-----	190	110	12	7	Atlanta, Ga.-----	127	58	9	10
Bridgeport, Conn.-----	35	25	1	-	Baltimore, Md.-----	275	138	16	8
Cambridge, Mass.-----	43	33	1	-	Charlotte, N. C.-----	50	25	2	1
Fall River, Mass.-----	27	18	-	2	Jacksonville, Fla.-----	79	34	6	7
Hartford, Conn.-----	67	37	3	3	Miami, Fla.-----	118	67	2	8
Lowell, Mass.-----	23	19	1	-	Norfolk, Va.-----	68	33	4	1
Lynn, Mass.-----	22	18	2	-	Richmond, Va.-----	84	36	1	2
New Bedford, Mass.-----	43	24	3	2	Savannah, Ga.-----	31	14	4	4
New Haven, Conn.-----	76	40	3	13	St. Petersburg, Fla.-----	104	87	9	2
Providence, R. I.-----	67	41	3	3	Tampa, Fla.-----	96	63	7	7
Somerville, Mass.-----	14	10	1	-	Washington, D. C.-----	257	122	12	21
Springfield, Mass.-----	51	32	7	3	Wilmington, Del.-----	53	29	5	4
Waterbury, Conn.-----	40	28	-	3					
Worcester, Mass.-----	65	43	1	2	EAST SOUTH CENTRAL:	668	335	35	37
					Birmingham, Ala.-----	114	57	2	7
MIDDLE ATLANTIC:	3,564	2,039	160	165	Chattanooga, Tenn.-----	40	16	2	4
Albany, N. Y.-----	63	35	2	6	Knoxville, Tenn.-----	33	22	4	-
Allentown, Pa.-----	27	16	-	1	Louisville, Ky.-----	114	57	10	13
Buffalo, N. Y.-----	165	90	8	9	Memphis, Tenn.-----	137	74	4	3
Camden, N. J.-----	45	32	-	-	Mobile, Ala.-----	59	25	-	3
Elizabeth, N. J.-----	34	19	3	2	Montgomery, Ala.-----	51	26	3	3
Erie, Pa.-----	43	23	1	2	Nashville, Tenn.-----	120	58	10	4
Jersey City, N. J.-----	99	50	8	3					
Newark, N. J.-----	98	45	5	5	WEST SOUTH CENTRAL:	1,284	660	56	98
New York City, N. Y.-----	1,813	1,030	79	82	Austin, Tex.-----	59	41	3	1
Paterson, N. J.-----	52	28	6	4	Baton Rouge, La.-----	57	24	4	4
Philadelphia, Pa.-----	484	272	13	13	Corpus Christi, Tex.-----	38	14	-	6
Pittsburgh, Pa.-----	236	121	9	15	Dallas, Tex.-----	185	94	2	15
Reading, Pa.-----	45	31	3	1	El Paso, Tex.-----	34	20	7	4
Rochester, N. Y.-----	100	74	9	3	Fort Worth, Tex.-----	106	58	6	12
Schenectady, N. Y.-----	14	11	-	-	Houston, Tex.-----	234	106	5	23
Scranton, Pa.-----	41	27	4	2	Little Rock, Ark.-----	30	14	3	1
Syracuse, N. Y.-----	65	38	3	4	New Orleans, La.-----	202	100	13	14
Trenton, N. J.-----	59	38	2	5	Oklahoma City, Okla.-----	75	39	2	3
Utica, N. Y.-----	33	25	4	2	San Antonio, Tex.-----	133	70	5	9
Yonkers, N. Y.-----	48	34	1	6	Shreveport, La.-----	57	31	7	1
					Tulsa, Okla.-----	74	49	9	5
EAST NORTH CENTRAL:	2,812	1,594	100	152					
Akron, Ohio-----	72	48	-	3	MOUNTAIN:	453	258	24	18
Canton, Ohio-----	51	22	2	3	Albuquerque, N. Mex.-----	42	23	2	4
Chicago, Ill.-----	801	429	31	36	Colorado Springs, Colo.-----	28	20	2	2
Cincinnati, Ohio-----	171	95	5	14	Denver, Colo.-----	100	53	2	3
Cleveland, Ohio-----	216	121	4	8	Ogden, Utah-----	20	11	1	2
Columbus, Ohio-----	138	71	8	7	Phoenix, Ariz.-----	100	53	7	2
Dayton, Ohio-----	90	56	2	3	Pueblo, Colo.-----	18	13	3	-
Detroit, Mich.-----	358	188	4	12	Salt Lake City, Utah-----	60	33	1	4
Evansville, Ind.-----	63	44	6	4	Tucson, Ariz.-----	85	52	6	1
Flint, Mich.-----	47	30	5	6					
Fort Wayne, Ind.-----	45	23	4	6	PACIFIC:	1,638	1,049	57	65
Gary, Ind.-----	22	8	3	5	Berkeley, Calif.-----	18	13	1	-
Grand Rapids, Mich.-----	47	35	3	2	Fresno, Calif.-----	49	30	2	4
Indianapolis, Ind.-----	170	95	6	9	Glendale, Calif.-----	37	27	1	1
Madison, Wis.-----	37	19	-	3	Honolulu, Hawaii-----	47	30	4	3
Milwaukee, Wis.-----	201	121	5	19	Long Beach, Calif.-----	60	35	1	4
Peoria, Ill.-----	43	29	4	4	Los Angeles, Calif.-----	513	333	15	22
Rockford, Ill.-----	37	27	2	1	Oakland, Calif.-----	55	39	2	1
South Bend, Ind.-----	37	24	2	2	Pasadena, Calif.-----	60	42	-	-
Toledo, Ohio-----	115	74	4	3	Portland, Oreg.-----	137	92	1	6
Youngstown, Ohio-----	51	35	-	2	Sacramento, Calif.-----	74	45	3	-
					San Diego, Calif.-----	94	59	3	6
WEST NORTH CENTRAL:	928	545	35	43	San Francisco, Calif.-----	176	110	8	8
Des Moines, Iowa-----	50	32	1	3	San Jose, Calif.-----	65	41	7	3
Duluth, Minn.-----	41	25	3	3	Seattle, Wash.-----	160	93	8	4
Kansas City, Kans.-----	76	40	11	10	Spokane, Wash.-----	50	31	-	2
Kansas City, Mo.-----	141	99	2	2	Tacoma, Wash.-----	43	29	1	1
Lincoln, Nebr.-----	42	24	2	2					
Minneapolis, Minn.-----	100	60	4	4	Total	13,452	7,664	592	691
Omaha, Nebr.-----	80	46	4	2					
St. Louis, Mo.-----	282	150	7	15	Cumulative Totals including reported corrections for previous weeks				
St. Paul, Minn.-----	66	44	1	1	All Causes, All Ages -----	13,452			
Wichita, Kans.-----	50	25	-	1	All Causes, Age 65 and over-----	7,664			
					Pneumonia and Influenza, All Ages-----	592			
					All Causes, Under 1 Year of Age-----	691			

\*Estimate - based on average percent of divisional total.



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JANUARY 7, 1967

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## Morbidity and Mortality Weekly Report

EPIDEMIOLOGIC NOTES AND REPORTS  
CASE OF HUMAN BABESIOSIS - California

On August 24, 1966, an epidemiologic case history of malaria and a stained blood smear were received by the National Communicable Disease Center from the California State Department of Public Health. As microscopic examination revealed the presence of erythrocytic parasites of unusual morphology, additional blood specimens were submitted for study. The patient, a 46-year-old white male resident of San Francisco, had become ill with chills and fever in early June. Treatment with chloroquin was followed by prompt recovery. His medical history contained no record of previous malaria and he had not been out of the United States since 1960. Of interest was prolonged hereditary spherocytosis which led to a splenectomy in 1964.

Microscopic examination of blood smears and serologic examination of sera revealed that the patient was suffering from babesiosis, but the species identification of the *Babesia* was undetermined. Animal inoculations with blood taken approximately 90 days after the onset of illness yielded negative results. The indirect fluorescent antibody test of the patient's sera, performed by the Laboratory of Parasite Chemotherapy, NIH, Chamblee, Georgia, was negative against 10 *Plasmodium* antigens. Sera from this same sample was found to contain *Babesia* antibodies by the Department of Veterinary Pathology and Hygiene, College of Veterinary Medicine, University of Illinois, and by the Parasitological Laboratory, USDA.

This serologic evidence for a diagnosis of babesiosis was supported by the distinct morphological appearance of the mature parasites in infected erythrocytes. The parasites were in typical clusters of four pyriform organisms arranged in a rosette pattern, each between 1-1/2 and 3 microns long. The parasites were unpigmented and early pre-division forms had spherical and ameboid shapes resembling the trophozoite states of *Plasmodium* species. (Reported by Dr. Erwin Braff, Chief, Bureau of Disease Control, City and County of San Francisco, Department of Public Health; Dr. Philip Condit, Chief, Bureau of Communicable Diseases, California State Department of Public Health; and an EIS Officer.)

## Editorial Note:

Babesiosis (piroplasmosis) is a common disease of domestic and wild animals, especially in tropical areas. It normally results from the bite of infected ticks but mechanical transmission can occur. In the United States the parasite is usually found in horses and dogs. One species causes Texas Tick Fever, the disease for which Theobald Smith demonstrated the arthropod vector in 1893.

The present case is the second documentation of human babesiosis in the world. The first case occurred in 1956 in a Yugoslavian male who had also been splenectomized some years before; his illness was fatal.<sup>1</sup> The importance of this parasite as a human pathogen is minor, but the fact that it can be confused with malaria and is apparently a zoonotic disease, at least under special circumstances, makes the observations recorded here of special interest.

<sup>1</sup>Skrabalo, Zdenko and Deanovic, Zivan: Piroplasmosis in man. Report of a case. Documenta de Medicina Geographica et Tropica 9:11-16, 1957.

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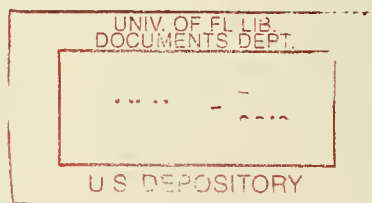
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IN ADDITION TO THE ESTABLISHED PROCEDURES FOR REPORTING MORBIDITY AND MORTALITY, THE NATIONAL COMMUNICABLE DISEASE CENTER WELCOMES ACCOUNTS OF INTERESTING OUTBREAKS OR CASE INVESTIGATIONS WHICH ARE OF CURRENT INTEREST TO HEALTH OFFICIALS AND WHICH ARE DIRECTLY RELATED TO THE CONTROL OF COMMUNICABLE DISEASES. SUCH COMMUNICATIONS SHOULD BE ADDRESSED TO:

THE EDITOR  
MORBIDITY AND MORTALITY WEEKLY REPORT  
NATIONAL COMMUNICABLE DISEASE CENTER  
ATLANTA, GEORGIA 30333

NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE BASED ON WEEKLY TELEGRAMS TO THE NCDC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES ON SATURDAY; COMPILED DATA ON A NATIONAL BASIS ARE RELEASED ON THE SUCCEEDING FRIDAY.

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